Color vision: Introduction by the feature editors

Steven L. Buck,[1,*] Rigmor Baraas,[2] Valérie Bonnardel,[3] Barry B. Lee,[4] Delwin T. Lindsey,[5] Michael A. Webster,[6] and John S. Werner[7]

[1]*Department of Psychology, University of Washington, Seattle, Washington 98195-1525, USA*
[2]*Optometry and Visual Science, Buskerud and Vestfold University College, 3611 Kongsberg, Norway*
[3]*Department of Psychology, University of Winchester, Winchester SO22 4NR, UK*
[4]*SUNY College of Optometry, New York, New York 10036-8003, USA*
[5]*College of Optometry, Ohio State University, Columbus, Ohio 43210, USA*
[6]*Department of Psychology, University of Nevada, Reno, Nevada 89557, USA*
[7]*Department of Ophthalmology, University of California Davis, Sacramento, California 95817, USA*
**Corresponding author: sbuck@uw.edu*

Received February 11, 2014;
posted February 11, 2014 (Doc. ID 206288); published March 26, 2014

This feature issue of the Journal of the Optical Society of America A (JOSA A) stems from the 22nd Biennial Symposium of the International Colour Vision Society (ICVS) and reflects the basic and applied research interests of members of the color vision community. A profile is included of the 2013 Verriest Medal recipient.

OCIS codes: (330.1690) Color; (330.1720) Color vision.
http://dx.doi.org/10.1364/JOSAA.31.000CV1

Since its inception in 1917, the *Journal of the Optical Society of America (JOSA A)* has served as an important forum for research on color vision. This feature issue on color vision continues that distinguished tradition, presenting peer-reviewed papers from frontiers in basic and applied research on color vision, including perception and psychophysics, physiology and anatomy, and color-vision deficiencies.

Most of the articles in this issue, including the Verriest Lecture by Françoise Viénot, are based on presentations at the 22nd Biennial Symposium of the International Colour Vision Society (ICVS), which was held at the University of Winchester, United Kingdom, July 14–18, 2013. Contributions to the conference reflect the diversity of interests of the members of the ICVS, which includes physiologists, psychologists, physicists, engineers, geneticists, optometrists, ophthalmologists and other related professionals with interests in color vision and color-vision deficiencies.

We are all grateful for the tireless efforts of the local organizers—Valérie Bonnardel, Marisa Rodriguez-Carmona, and John Barbur—and to the generous hospitality of the University of Winchester and Vice-Chancellor Joy Carter. To learn more about ICVS and to find information about regular or discounted student membership, visit the website: www.icvs.info. We invite you to join us for the 23nd Biennial Symposium to be held in Sendai, Japan, in July 2015.

The editors of this special issue are grateful to the contributors and referees who made this issue possible. We especially thank Editor-in-Chief Dr. Franco Gori for the opportunity to publish in this special issue and the *JOSA A* staff for their patient and diligent assistance.

2013 Verriest Medal Awarded to Professor Françoise Viénot

The International Colour Vision Society (ICVS) presented the 2013 Verriest Medal to Professor Françoise Viénot at the 22nd Biennial ICVS Symposium held at the University of Winchester in England, July 14–18, 2013. This award was established in 1991 in memory of the founding member of the society, Dr. Guy Verriest, and honors outstanding contributions in the field of color vision.

Trained as a physicist, Professor Viénot was introduced to the mysteries of color science by Yves Le Grand, and she has carried forward his distinguished tradition. In her early work on colorimetry, she became especially concerned with individual differences in color matches before the topic had later become fashionable. Her mastery of colorimetry led her to the work for which she is best known in the wider world: developing an algorithm for simulating for the normal eye the appearance of scenes for the dichromat. This algorithm has found many practical applications, including an application for the iPhone, which allows the user in real time to inspect the world as it appears to a protanope or deuteranope.

Professor Viénot has contributed to many other aspects of color science. She has published historical research on the color system of Chevreul. She has published a textbook on color science as well as important papers on Maxwell's spot and macular pigment, on mesopic photometry, on the perception of gloss, and on the Benham–Fechner colors. She has a talent to take applied problems and use them to inspire fundamental research.

For most of her career, Françoise Viénot has been based at the Muséum National d'Histoire Naturelle, which has had an interesting influence on her science. She is an expert on plant pigments and is an authority on horticultural colors. The museum brought her into contact with ecologists, a collaboration that led to the first experimental paper on the fruit signals that trees present to their disseminators.

For nearly 20 years, she has marshaled all her considerable tact, patience, and precision to bring to its conclusion the CIE Technical Committee 1-36, which has prepared a physiologically based system of colorimetry. To our own society, and to the IRGCVD from which it evolved, she has been an active and loyal contributor since 1974.

The Verriest Medal is bestowed by ICVS to honor long-term contributions to the knowledge of color vision. The medal was established in 1991 in memory of Dr. Guy Verriest, the first president of the society.

Above: Attendees of the 22nd Symposium of the International Colour Vision Society, held July 14–18, 2013.

Below: Venue for the Symposium, the University of Winchester in England.